Work Ordo July 14, 2009 1		279					5 A A A A		ئى			201 - 111 - <u>-</u>	Page
Item ID: Revision ID:	D3121-043 E			A	ccept					Setup		1 10047101 0	
	Bracket Asser 7/15/09 7/15/09	Start Qty: 4.00 Reald Oty: 4.00	4.0			Cust Item I Customer:	D:				Stop		
Approvals:	Process Pla	in:	Date: Date:		Tooling: SPC (Y/N):		ite:		1	Run	Start Stop		
Sequence ID/ Work Center II	)	Operation Description			Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reje Qty		Reject Number	Insp. Stamp
Draw Nbr	Rev	ision Nbr											
D3121	Rev	Е				•`							
Bandsaw Jeaspa Bandsaw		BAND SAW  Memo  Cut blanks:	(1.000" x 2.000	") 3.250" long	0.00 0.00 M	09/08/11			14				
HAAS I	machine #1	HAAS CNC VERTICA  Memo  1-Machine 13□2-Debu		· Folio FA329	0.00 0.00 and Dwg D3121 ☐ Ide		S.L. (,	29/0g	<u>u</u>				

0.00

0.00

m= (0708/11

y

120 QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

Memo

### **Dart Aerospace Ltd**

W/O:			WC	RK ORDER CHANG	ES		-1- 11-11	
DATE	STEP	PR	OCEDURE CHAI	NGE	Ву	Date Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
							Prod Wigi	
		,						
Part No		PAR #:	Fault Cate	jory:	_ NCR: Yes 1	No DQA:	Date: _	
						C Closed:		
NCR:			WORK ORDE	R NON-CONFORMA	NCE (NCR)			
DATE	STED	Description of NC		Corrective Action Section		Verification	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	QC Inspector

July 14, 2009 11:34:44 AM

Page 2

Item ID:

D3121-043

Accept

Setup Start

Stop



**Revision ID:** 

Ε Item Name: Bracket Assembly

**Cust Item ID:** 

**Customer:** 

Draw

Number

**Start Date:** 

7/15/09

QC:

Start Qty: 4.00

Required Date: 7/15/09 Req'd Qty: 4.00

Reference:

Approvals:

**Process Plan:** 

Date:

Date:

**Tooling:** SPC (Y/N):

Set Up/

Date:

Draw

Rev.

Plan

Code

Date:

Start

Reject

Qty

Stop

Reject

Number Stamp

Insp.

Sequence ID/

Work Center ID

130

QC

Quality Control

Operation **Description** 

QC8- Inspect parts - second check

Memo

**Run Hours** 0.00

0.00

ml 09/08/11

Accept

Qty

140

Small Fab Small Fab

Small Fab

Memo

Memo

0.00

0.00

Assemble D3121-13as per Dwg D3121.

150

QC

Quality Control

QC5- Inspect part completeness to step on W/O

2) Sorlos/13

0.00

#### **Dart Aerospace Ltd**

	•								
<b>W</b> /O:			WC	RK ORDER CHANG	ES			*	
DATE	STEP	PR	OCEDURE CHAI	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC inspector
-								- 7 au	
Part No	:	PAR #:	Fault Cated	iorv:	NCR: Yes	No DO	Δ.	Date:	
				,				Dute: _ Date: _	
NCR:			WORK ORDE	ER NON-CONFORMA	ANCE (NCR	)			····
DATE	STEP	Description of NC		Corrective Action Section		Verific	cation	Approval	Approval
DAIL	O'L'	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Secti	on C	Chief Eng	QC Inspector
						-			
	1								}

July 14, 2009 11:34:44 AM

Item ID:

D3121-043

**Revision ID:** E

Item Name: Bracket Assembly

**Start Date:** 

7/15/09

Start Oty: 4.00

**Operation** 

Description

Required Date: 7/15/09

Req'd Qty: 4.00



Date:

Setup Start

Stop



**Cust Item ID:** 

**Customer:** 

Reference:

**Approvals:** 

Process Plan:

QC: \_\_\_\_\_

Date:

**Tooling:** 

Accept

Date:

Date:

Run

Start

Stop

Sequence ID/ **Work Center ID** 

160

Identify as per dwg & Stock Location

0.00

**SPC (Y/N):** 

Set Up/

**Run Hours** 

Draw Number Draw Rev.

Plan Accept Qty Code

Reject Qty

Insp. Reject Number Stamp

Packaging Packaging

Memo

0.00

170

QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

096 08/17 H

Dart Ae	rospace	e Ltd						
W/O:			WC	ORK ORDER CHANGE	ES			
DATE	STEP	PRO	OCEDURE CHA	NGE	Ву	Date Q	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No		PAR #:	Fault Cate	gory:	NCR: Yes	No DQA:_	Date: _	J
				,	QA: N/	C Closed: _	Date: _	
NCR:			WORK ORDE	ER NON-CONFORMA	NCE (NCR	)		
D. 4.75.00	0755	Description of NC		Corrective Action Section	n B	Verification	an Annroyal	Annessal
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C		Approval QC Inspector

				SE (NCK)			
	Description of NC		Corrective Action Section B		Varification	Anneous	A
STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	Approval QC Inspector
	_						
•							
			•				
	STEP	STEP Description of NC Section A	Section A Initial	STEP Section A Initial Action Description	STEP Section A Initial Action Description Sign &	STEP Section A Initial Action Description Sign & Section C	STEP Section A Initial Action Description Sign & Section C Chief Eng

#### **Picklist Print**

July 14, 2009 11:34:43 AM

Work Order ID: 50279

D3121-043RevE

Parent Item Name: Bracket Assembly

Parent Item:



**Start Date: 7/15/09** 

Required Date: 7/15/09

Stort Oty 4 00

Comments:									Start Qty: 4.00		Required Qty: 4.	00
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3121-21RevE		Manufactured	No			140	Each	74.0000	8.0000	<i>J</i> 50,	9/08/13	
				<u>Wareho</u>	<u>use</u>	<u>Loc</u>	<u>Qty</u>	Loc Code				
				Loca	ation_							
				Main Wa	arehouse							
				ST			74		_			
					46032		17					
					46739 50096		17 40			<u> </u>		
D3121-241RevE		Manufactured	No		30070	100	Each	69.0000	8.0000	Jo?	108/13	<u>-</u>
Bearing Assembly				Wareho	use	Loc	Otv	Loc Code				
					ation							
				Main Wa	arehouse							
				ST			69		_			
					46031		9					
M174B1.250X02.000		D 1 1	NI.		46169	140	60	20.5600		8		
17-4 SS Bar <del>1.250</del> x 2.00		Purchased	No			140	f	28.5600	1.1389			
1.00				Wareho	use	Loc	<u>Oty</u>	Loc Code				
a Souson	10			Loca	ation							
10100	70			Main Wa	arehouse							

419478

109851

111787

28.56 4.56

24

MAT

1.08 J.L 08/08/13

#### **Dart Aerospace Ltd**

	•								
W/O:			W	ORK ORDER CHANG	SES				•
DATE	STEP	PRO	OCEDURE CHANGE			Da	te Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
								j.	
Part No	:	PAR #:	Fault Cate	egory:	_ NCR: Ye	s No	DQA:	Date: _	····
					QA	N/C C	losed:	Date: _	
NCR:			WORK ORD	ER NON-CONFORM	ANCE (NO	CR)			
DATE	STEP	Description of NC			tion B	v	erification	Approval	Approval
DAIL	J	Section A	Initial Chief Eng	Action Description Chief Eng	Sig: Da		Section C	Chief Eng	QC Inspector
				,					
							,		

DART AEROSPACE LTD	Work Order:	
Description: Bracket	Part Number:	D3121-13
Inspection Dwg: D3121 Rev: DE		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

X	First Article	Prototype
---	---------------	-----------

				·		
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.300	+/-0.010	-299	/			•
0.080	+/-0.010	-018				
0.392	+0.002/-0.000	-3928				
0.350	+/-0.010	352	/			
1.540	+/-0.010	1.542				
R0.250	+/-0.010	1.250				
1.800	+/-0.010	1.802				
1.379	+/-0.010					
1.050	+1-0.010					
0,420	41-0.010					
0.400	+/-0.010	404	/			
1.220	+/-0.010	1,220	/			
2.63	+/-0.030	2632				
2.80	+/-0.030	2.799	/			· · · · · · · · · · · · · · · · · · ·
2.48	+/-0.030	2474	/			
0.130	+/-0.010	-131				
0.300	+/-0.010	. 298				
0.080	+/-0.010	.078	V			
0.260	+/-0.010	.261				
0.032	±1-0.010 1.0	16.026				
0.200	+/-0.010	, 200	1		<u> </u>	L
0.400	+/-0.010	. 397	V			
0.381	+/-0.010	- 383				

Measured by:	)L.	Audited by:	Prototype Approval:	N/A
Date:	09/18/10	Date: 09/108/11	Date:	N/A

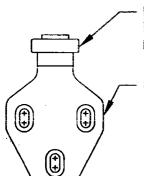
Rev	Date	Change	Revised by	Approved
Α	05.02.17	New Issue P/O D3121-043/-044	KJ/JLM ,	1
В	06.06.14	Dwg Rev. updated	KJ/JLM	



DESIGN A DRAWN BY			DART AEROSPACE LTD ' HAWKESBURY, ONTARIO, CANADA	
CHECK	ED_	APPROVED	DRAWING NO.	REV. E
	4	7	D3121	SHEET 1 OF 10
DATE			TITLE	SCALE
07.1	07.11.07		BRACKET ASSEMBLY	1:2
Α		02.04.15	NEW ISSUE	
			T	



07.11.07			BRACKET ASSEMBLY 1:2
	Α	02.04.15	NEW ISSUE
	В	03.01.16	ADD RIDGES; ADD MAT'L PROP; FIX P/N ADD -141/-143/-144/-145/-146
	С	04.02.17	ADD CLEARANCE; USE -241 BEARING
	D	06.05.17	D3121-25 CAP WAS 1.024, NOW 1.000
	E	07.11.07	ADD TOLERANCE TO 0.032 (DETAIL B)



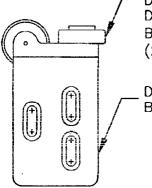
D3121-21 BOLT (1) D3121-241

BEARING ASSEMBLY (1)

D3121-11 BRACKET

#### D3121-041 BRACKET ASSEMBLY

(REPLACES PREMIER P/N B30-23000-33)



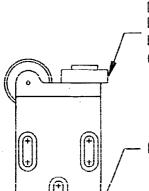
D3121-21 BOLT (1) D3121-241

BEARING ASSEMBLY (1) (2 PLACES)

D3121 - 13/-14**BRACKET** 

D3121-043 (SHOWN) / D3121-044 (OPPOSITE) BRACKET ASSEMBLY

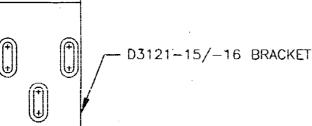
(REPLACES PREMIER P/N B30-23000-37/-38)



D3121-21 BOLT (1) D3121-241 BEARING ASSEMBLY (1) (2 PLACES)

D3121-045 (SHOWN) / D3121-046 (OPPOSITE) BRACKET ASSEMBLY

(REPLACES PREMIER P/N B30-23000-35/-36)



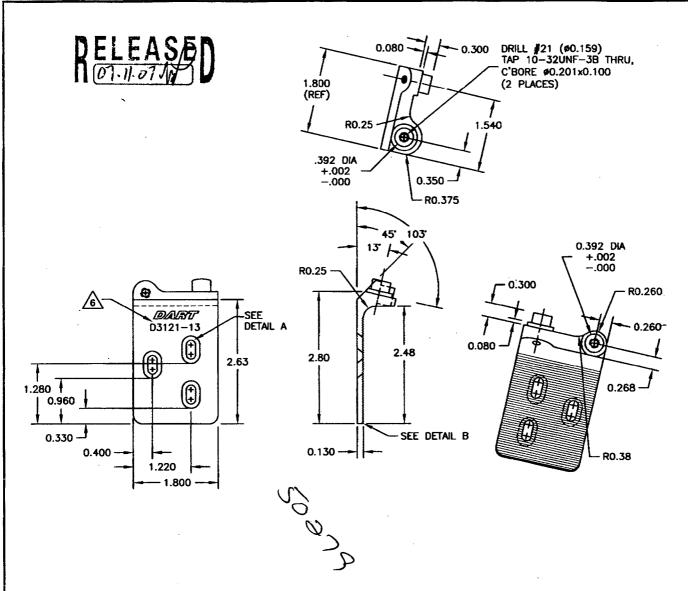


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DESIGN	DRAWN BY	DART AEROSP, HAWKESBURY, ONTARK	
CHECKED	APPROVED,	DRAWING NO.	REV. E
4	<b>-</b>	D3121	SHEET 5 OF 10
DATE		MLE	SCALE
07.11.07	<u>-</u>	BRACKET ASSEMBLY	1:2



# D3121-13 BRACKET (SHOWN) D3121-14 BRACKET (OPPOSITE)

1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE STRENGTH = 150 ksi

MIN YIELD TENSILE STRENGTH = 100 ksi

- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N & LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

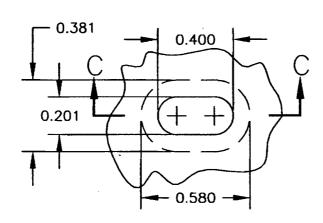
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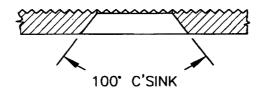
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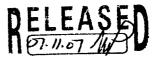
DESIGN	DRAWN BY	DART AEROSP HAWKESBURY, ONTAR	
CHECKED	APPROVED	DRAWING NO.	REV. E
4	<b>-#</b>	D3121	SHEET 3 OF 10
DATE		TILE	SCALE
07.11.07		BRACKET ASSEMBLY	1:1

**DETAIL A:** SLOT DETAIL SCALE 2:1 VIEW ROTATED



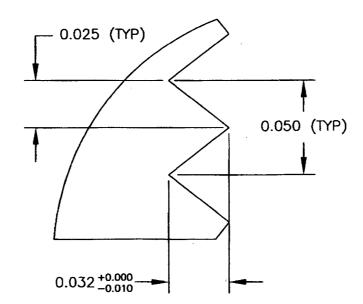


**SECTION** C-C



**DETAIL B:** RIDGE DETAIL PARTIAL SECTION **SCALE 1:20** 





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